

# New Harvesting Technologies Project

## Summary of Validation Feedback, Responses and Actions



27 March 2020

This project includes the development of five new units of competency and the review of twenty-five units of competency within the FWP Forest and Wood products Training Package.

The final draft materials were developed as a result of feedback provided by stakeholders and subject matter experts (SMEs) during development of the drafts and following broad industry feedback collected from 27 January to 28 February 2020. The draft materials, as well as a summary of feedback received and the changes made to first drafts, were made available on the Skills Impact website for validation from 16 March to 27 March 2020.

Direct emails were sent to over 90 people from industry organisations operating in NSW, VIC, QLD, SA, TAS and WA. These stakeholders were also consulted during the previous stages. Consultations were also communicated to eight industry associations at the state or national level and the employee association. Direct emails were also sent to nearly 20 Registered Training Organisations and most of them contributed to the development and during the consultations on the draft components. The Training Curriculum Services in VIC and WA also confirmed their own consultations on this project within associated TAFE network and industry stakeholders through Industry Training Council.

Validation feedback was received from stakeholders via emails, phone and surveys.

Below is a summary of the validation feedback on the {draft units of competency developed and reviewed for the New Harvesting Technologies Project, and how these issues have been dealt with. This involves a consideration of the information provided, views of industry stakeholders and from people who are part of the Subject Matter Expert Working Group process. Resolutions are constructed to consider the needs and views of stakeholders to the extent possible, and to comply with the Standards for Training Package 2012. The resolutions may represent a compromise on one or more stakeholder views with the aim of a workable outcome for industry, State and Territory Training Authorities (STAs) and training providers. State-based and national industry associations and representatives from the Construction Forestry Maritime Mining And Energy Union (CFMMEU) were informed of the project throughout its progress and encouraged to communicate the projects' consultations to members.

**Acronyms - PC – performance criteria, PE – performance evidence, KE – knowledge evidence, AC – assessment conditions, SMEs – Subject Matter Experts**

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## Summary of Validation Feedback on Units of Competency

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<b>General</b>		
Industry, Industry Association, VIC	<p>I understand that our forest industry trainers have had input into all of these units, except the “use chainsaw within a tree” (large input from the horticulture sector).</p> <p>The feedback I have received is the “access, capture and store mobile forestry data” Is a great upgrade compared to the existing GIS information unit (imported from the local gov LGA training package).</p> <p>A query raised is whether the “read and interpret digital maps and forest ops plans” should be a harvesting sector unit. Should it be a COT unit for use across harvesting and forestry?</p>	<p>Thank you for your feedback. As also mentioned further below, the unit code for “read and interpret digital maps and forest ops plans” has been amended to read COT. This unit will be placed in both the Certificate III in Forest Growing and Management and Certificate III in Harvesting and Haulage.</p>

## New units of competency

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>General</b>		
Industry, SA	<p>Just checking to see whether harvest optimisation was meant to be amongst the bundle.</p> <p>I wonder can we use the focus on lower level qualifications to rationalise lists so that we can focus on these new units???</p> <p>Do you know why they are being considered cert. 4 / diploma level?</p>	<p>Thanks for your comment.</p> <p>Five draft new units including the harvest optimisation units have been deferred, as they relate to Certificate IV in Forest Operations which is not approved for changes in this project.</p> <p>These 5 new units describe tasks that are relatively complex in nature (analysis, responsibility, autonomy, etc) and are performed by forestry technicians (including foresters, harvest managers, wood flow coordinators, value recovery coordinators, GIS officers, forestry planners, forestry supervisors and field foresters). This is the reason for which they should be at an AQF level 4, in the Certificate IV. The Certificate III describes the job role of forestry workers and harvesting operators.</p> <p>All our available options for completing these units have been discussed and the only possibility is to pitch a project proposal in the Skills Forecast that aims to review the high-level jobs in forestry and include also these units.</p> <p>The skills forecast and development of the project proposals, including for the high-level jobs in forestry, are underway.</p>

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
<b>FWPCOT3XXX Use chainsaws off ground (now renamed to Use chainsaw within a tree)</b>	
<p>RTO, VIC</p> <p>This unit has had a number of amendments and now includes the Australian Standards AS2726.2 (2004), AS2727 (1997) and AS4373 (2007). Is it necessary to specify the actual Australian Standards in the unit descriptor? Also, AS2726.2 does not appear in the PCs or KE.</p> <p>Otherwise I have no further comments to add.</p> <hr/> <p>A few points in regard to FWPCOT3XXX <i>Use chainsaw within a tree</i>.</p> <ul style="list-style-type: none"> <li>• The unit is about using a chainsaw safely to undertake tree pruning (cutting or trimming) work from within a tree at height. The standards referred to relate to aspects of the unit, not the whole.</li> <li>• The Australian Standards that have been inserted into the unit - <i>AS2726.2 Chainsaw safety requirements Part 2: Chainsaw for tree service</i>, <i>AS2727 Chainsaws – Guide to safe working practices</i> and <i>AS4373 Pruning of amenity trees</i> are voluntary standards unless they are referred to by Federal or State governments in legislation.</li> <li>• ASQA regulates the unit of competency, not any external standards referred to in the unit.</li> <li>• The unit of competency is the industry standard and it may reflect other industry standards but should not repeat them or refer to them as the industry standard.</li> </ul> <p>My recommendation is to remove the Australian Standards from the unit Application descriptor and any reference to them as minimum standards.</p> <p>The use of the standards AS2727 and AS4373 in Performance Criteria 4.8 and 4.11 to serve as a guide for operational techniques is not inconsistent with reflecting the standards in the unit as per the last dot point above. Question as to why AS2726.2 does not appear in the PCs but does appear in the Performance Evidence. Suggest review.</p> <p>The PE states that <i>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit</i>. It should not repeat any of the elements or PCs. The first and third dot point, that contain the Australian Standards and virtual repeats of PCs 4.8 and 4.11. Suggest remove.</p>	<p>Thanks for your feedback. All changes were incorporated as suggested, i.e.:</p> <ul style="list-style-type: none"> <li>• Removed reference to the specific Australian Standards from the Application and Performance Evidence but maintained and clarified reference to these standards in the Performance Criteria and Knowledge Evidence.</li> </ul>

	<p>I note that the KE has one dot point relating to the Australian Standards. Suggest adding an Australian Standards dot point with all three (or two?) ASs listed.</p>	
<p>RTO, NSW</p>	<p>The Application states that “the unit applies to individuals who use chainsaws off ground when conducting tree trimming or dismantling work whilst working at height in arboriculture settings”.</p> <p>As Arboriculture is now a recognised trade, I believe the first paragraph in Application should read: This unit of competency describes the skills and knowledge required to safely and effectively operate a chainsaw at heights within a tree as per AS2727,2726.2 and AS4373.</p> <p>Persons training or assessing in this unit should be using the aforesaid Australian Standards as a benchmark anyway so I believe the Standards to be the actual purpose or goal to achieve competency.</p>	<p>Thank you for your comments.</p> <p>It is proposed that the Application makes no direct reference to the three Australian Standards, AS2727, 2726.2 and AS4373 on the following basis.</p> <p>The unit of competency is an industry standard that may reflect a range of workplace procedures, standards and industry codes of practice. A unit of competency is not, or should be, a close reflection of the Australian Standards.</p> <p>Further, the Application already states the following, which may be a more appropriate statement for the unit purpose:</p> <p style="text-align: center;"><i>All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation, standards and industry codes of practice that apply to the workplace.</i></p> <p>Previous feedback also indicated that the Australian Standards are voluntary unless they are referred to by Federal or State governments in legislation.</p> <p>It should also be noted that the relevant Australian Standards, AS2727, 2726.2 and AS4373, are and will be mentioned in the Performance Criteria and Knowledge Evidence where appropriate.</p>
	<p>Ref. Performance Evidence</p> <p><i>There must be evidence that for each tree the individual has:</i></p> <ul style="list-style-type: none"> <li>• <i>a horizontal branch with a diameter greater than 600mm.</i></li> </ul> <p>It is impossible for any species of tree 15metres (that I know of) to have a lateral branch with a diameter of 600mm or greater. The size of branch should be 100mm or greater.</p> <p>The bullet point: “<i>A leaning section or leader</i>”.</p> <p>In order to cut a leaning tree on the ground, a person must perform this in Intermediate Tree Felling. Should “use a chainsaw within a tree” have Fall Trees Manually Intermediate as a prerequisite unit as I feel that to ensure the safety of the participant he/she must be able to combine three skills namely; Safe and effective tree accessing techniques</p>	<p>It is proposed that no prerequisites are used for this unit at this time, for the same reasons discussed as part of the tree felling units.</p> <p>There are no clear regulations that outline the need for prerequisite skills or a clear industry evidence/position for prerequisites.</p> <p>Advise from the arboriculture stakeholders indicated that the use of prerequisites in the past was inappropriate and introduced unnecessary barriers to experienced/skilled workers.</p> <p>However, it is proposed that the following statement is included in the Applicatin statement to provide further guidance about in what context(s) the unit may be applied, for safety purposes:</p> <p style="text-align: center;"><i>Work is performed under some supervision, generally within a team environment. Individuals who use this unit will have had experience in using arborist climbing techniques and chainsaws in an arboriculture, forestry or related work</i></p>

	<p>(climbing being one method) safe and effective cutting techniques and producing cuts that are in line with AS4373.</p> <p>A leaning section or leader of a tree should only be cut by an operator with appropriate skill.</p> <p>Eg; If it is a palm tree, slash pine, hoop pine or many other species, wing cuts will have to be inserted on each side of the scarf cut to prevent the leader or section splitting and/or tearing. How does a student know this?</p> <p>Secondly, if the tree species is prone to splitting or free grained, the cutter is more likely to “barber chair” the leader or section up the tree at huge risk of injury to him/her self.</p> <p>Within my own tree business, no person was allowed to climb until they had a great deal of experience cutting different species, in all weather conditions, in vastly different environments and could easily demonstrate absolute competency in chainsaw handling skills.</p> <p>This bullet point should read; “a section of trunk or tree leader”.</p> <p>The bullet point “<i>A head or section of vertical timber with a diameter greater than the bar length of the saw</i>”.</p> <p>Considering that the shortest bar length available by any manufacturer is 300mm, to have a student with no formal training or competency identification to perform this method of cutting is simply dangerous as unless a rope or other means is used to prevent the final cut compressing onto the saw (as gravity is pulling the weight of the head or vertical section) directly downwards.</p> <p>The only other method commonly but not acceptably used is to cut the section with the chainsaw in one hand (contravenes AS2726.2) and pushing the section away from the operator with the other hand.</p> <p>This bullet point should read “a head or section of timber with a diameter 50mm less than the bar length of the saw”. The “50mm less” negates any potential for kickback of the chainsaw.</p> <p>The overall problem I see with this unit is that we are trying to combine two individual skills in one assessment.</p> <ul style="list-style-type: none"> <li>• Competent chainsaw operator all level up to Intermediate.</li> <li>• Competent tree climber.</li> </ul>	<p><i>context. This unit is not intended for use by novice or inexperienced chain saw operators.</i></p> <p>The training providers will need to continue their practices that assess pre-existing training or experience before enrolling students in this unit.</p> <p>The size of the branch in the Performance Evidence was changed to 100mm or greater, as suggested.</p> <p>The other dot points in the Performance Evidence were maintained after further discussions with the stakeholder being clarified the skill level of this unit and the intended purpose to be packaged in the Certificate III and not the Certificate II.</p>
Industry, TAS	<p>Referring to the feedback above. As a general rule, I think it's a mistake to reduce the level of any unit of competency to match our idea of a typical student. A unit of competency should define what we see as the</p>	<p>Thank you for your comments. It is suggested that the branch size in the Performance Evidence be changed to 100mm or greater, as suggested by the feedback above. This is to ensure that the unit</p>

<p>minimum benchmark of competency for safe work in industry. If a student is not able to fall sections of timber that are greater than bar length, I don't think they're competent to be working at height in trees. It's typical of most of my work to require this on a daily basis - if students can't perform this task then I wouldn't want them on my sites.</p> <p>There are many methods for working on large timber without using one hand on the saw:</p> <ol style="list-style-type: none"><li>1. Use a tag line or pulling rope</li><li>2. Use wedges (most climbers carry <a href="#">pocket wedges</a> for working on big timber but normal wedges are fine also)</li><li>3. Put the scarf deeper than the centre of gravity. I do this all the time, working on timber where the top has been removed</li><li>4. Identify and fell the section in the direction of lean if the drop zone permits.</li></ol> <p>Why does the student automatically have no formal training? Surely the training should begin with smaller trees, smaller timber etc, and work up to this? Most units of competency ask the student to demonstrate fairly high-level skills. EG the Aerial Rescue unit (currently AHCARB306) doesn't ask the student to do a basic rescue as there's no point, the benchmark for competency should be a rescue which would be typical of a likely scenario. It is part of the training process to bring students up to the required level of skill. If we can't ask for complex skills to be assessed before the student is qualified in that skill then the whole model won't work.</p> <p>I completely agree with the statement that "A leaning section or leader of a tree should only be cut by an operator with appropriate skill". Defining the level of appropriate skill is the whole point of this exercise, and of a unit of competency in the first place. If we write our units so that unskilled people can pass them... we shouldn't be surprised to find the level of skill in the industry to be pretty low.</p> <p>Overall, I would have preferred that the lateral branch diameter remain at 600mm. Please note that the requirement is for a tree of <i>at least 15m</i> - there's nothing to say that the tree has to be only 15m. Watching arborists, I often see them struggle to get diagonal angled scarfs accurate in the side of larger branches, and I think it's an under-trained skill. I think 100mm branches, using smaller saws, are easier to get right. I'd lean toward this being at the more challenging end, rather than the easier end.</p>	<p>does not restrict assessment in jurisdictions where trees with large branches are generally not available. If the unit creates such situations, it does not comply with the ethical principles of the Standards for Training Packages.</p> <p>Also see other proposed resolutions mentioned at the feedback item above.</p>
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<b>FWPHAR3XXX Operate harvesting machine with winch-assist system</b>		
<b>FWPHAR3XXX Use mechanised equipment for forestry site preparation on steep slopes</b>		
RTO, VIC	Supported - all looks good from what I have had a look over	Thanks for your support
<b>FWPCOT3XXX Read and interpret digital maps and forest operation plans</b>		
RTO, VIC	My only query is whether the proposed new unit "Read and interpret digital maps and forest ops plans" would be better placed as a COT unit for use in forestry and harvesting rather than a harvesting sector unit?	Thank you for your comment, the unit code has been amended to read COT as suggested. This unit will be placed in both the Certificate III in Forest Growing and Management and Certificate III in Harvesting and Haulage.
Industry, TAS	Agreed with the information presented in the draft unit of competency	Thanks for your feedback and support
Industry, QLD	Yes, the final draft unit meets the need of industry.	Thanks for your feedback and support
<b>FWPCOT3XXX Access, capture and communicate forestry field data using mobile devices</b>		
Industry, TAS	Agreed with the information presented in the draft unit of competency	Thanks for your feedback and support
Industry, QLD	Yes, the final draft unit meets the need of industry.	Thanks for your feedback and support

### Revised units of competency

<b>Stakeholder Comments and Identified Issues</b>		<b>Consideration and Proposed Resolution</b>
<b>All tree felling units</b>		
RTO, WA	<p>I agree with changes on the tree felling units.... but have left a comment disagreeing with the requirement to complete both a humbolt and standard scarf for Intermediate felling. Should be any scarf providing it meets criteria but can live with it!</p> <p>Thanks for doing this. Ever since I can remember and especially in the early days of ATTA and before FAFPESC and ForestWorks, there has always been plenty of opinions and different ideas and sometimes heated discussions about what is right and what is wrong when it comes to felling trees. Even today we are still varied however the gap is now minimal.</p>	<p>The reason for including a demonstration of two and not one scarfing method in the performance evidence of this unit aligns with the complexity of tasks described by this unit. This unit covers tasks carried out on trees with intermediate complexity, which involve different cutting methods depending on the tree characteristics.</p> <p>An industry stakeholder requested to share his views on this issue said: <i>"All four scarves, standard, humbolt, 90degree and V have different yet appropriate applications and since Cert III is a (higher level than basic tree felling) the student must be trained to a higher knowledge and skill level, therefore, the purpose of each scarf should be known and able to be applied by the individual."</i></p>
RTO, NSW	This also looks good	Thanks for your feedback and support
RTO, QLD	I have gone over this and am OK with what we have now.	Thanks for your feedback and support



Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>FWPFGMXXX Fall trees manually (intermediate)</b>		
RTO, NSW	<p>Ref Performance Evidence:</p> <ul style="list-style-type: none"> <li>dot point about “back cut height” - delete “parallel to and”. Reason: On a tree with uneven canopy weight distribution or side leaning tree, the back cut will never be parallel to the scarf line as more hingewood fibres must be retained on the opposing side of the weight distribution, this also applies when felling in windy conditions.</li> <li>dot point about hinge wood thickness - Hinge wood thickness is (add MINIMUM 1/10 of the tree diameter.) Reason: On a forward and side leaning tree, it will usually begin to fall before the cutter gets to 1/10 of the diameter when performing the back cut/release cut.</li> </ul>	<p>Due to the inconsistent views received during the consultation periods, we have used the Tree Faller’s Manual as the primary document to inform this unit and address the dissented grounds. Therefore, it is advised that:</p> <ul style="list-style-type: none"> <li>“Standard” scarf should be read as is described in the Tree Faller’s Manual</li> <li>Box scarf is not a method in the Tree Faller’s Manual and, therefore, we suggest not including it on the list of scarfing methods</li> </ul> <p>In addition, we suggest the following wording for the size of opening and back cut height to match the words from the Tree Faller’s Manual:</p> <ul style="list-style-type: none"> <li>size (<b>width</b>) of opening – <del>the width of the scarf opening is 2/3 across the front of the tree diameter/width</del></li> <li>back cut height - the back cut is <b>level parallel to</b> and above the scarf line by <b>about</b> 1/10 of the tree diameter and</li> <li>hinge wood thickness is <b>about</b> 1/10 of the tree diameter</li> </ul>
RTO, VIC	<p>Ref. Performance Evidence:</p> <ul style="list-style-type: none"> <li>scarfing methods <ul style="list-style-type: none"> <li>assuming standard is 45%</li> <li>Add Box scarf – this scarf is still recognised in industry but not very often used.</li> </ul> </li> <li>dot point about “size of opening” - this point will not comply with industry log utilization prescriptions. Example – 60 cm tree. 40 cm taper from scarf left on log, when flush trim log, this will wast 40 cm + of log. I know this is FGM and not Harvest unit, we train tree fallers the same for both sectors regarding scarf. Can it be changed to minimum size of opening 45% on standing tree.</li> <li>Dot point about “back cut height” - can minimum be added to this specification. We ass a minimum, would have 5 cm step on a 30 cm tree, to stop it slipping off back of stump.</li> </ul>	
<b>FWPCOT3XXX Transport forestry logs using trucks</b>		
RTO, NSW	<p>Thanks for prompt response, so much happing at the moment</p> <p>Yes that what I thought with these units. The content I was looking at can be sorted when designing the new tools by individual RTO.</p> <p>Lets leave as is, at this late stage.</p>	<p>The project team acknowledged this feedback and requested more specific information on the knowledge items that were believed too onerous.</p> <p>The stakeholder was also advised that a number of new PCs and knowledge items were added on the unit <i>Transport forestry logs</i></p>

**Stakeholder Comments and Identified Issues**

Sorry for the late feedback on the units, I have had a look at most now. Whilst not wanting to change a lot, my main comment would be similar to what we had with the felling units.

In the knowledge sections I think we tend to break the task down too far, even to the point of repeating individual knowledge requirements/questions in an assessment. I think there are examples in the shift forestry logs with trucks where it tends to get away from the particular task. Lot of the knowledge evidence relates to other tasks that relate to the industry but not specific to the role of truck driving.

I always ask myself if all the little things are required to get the logs from the bush to the mills. Once again with the detail in the knowledge section the drivers would be straight out of UNI.

I see this in other units as well. I look at some others, nothing specific just look at who we deliver too.

**Consideration and Proposed Resolution**

*using trucks* to align it with the training requirements outlined in the new Log Haulage Code of Practice approved by the AFPA Chamber late last year.

A reminder expressing the concern that the project is close to the end of its consultation stages when we seek to identify errors and validate the final drafts was also conveyed, explaining that major changes to the units would require feedback from the wider industry/group and the project timeframe does no longer permit this. The stakeholder indicated satisfaction with the response received, suggesting that there are no issues with the units at this stage.